



7/25/01
C.WILLS
Patent

Attorney's Docket No. 026125-068

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
Jiren YUAN) Group Art Unit: 2816
Application No.: 09/672,803) Examiner: Unassigned
Filed: September 28, 2000)
For: Versatile Charge Sampling Circuits)

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SECOND PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Further to the Preliminary Amendment filed September 28, 2000, and before examination, please amend this application as follows.

IN THE SPECIFICATION

~~Page 1, line 1, please delete the line entirely;~~

~~line 3, please delete the line entirely;~~

~~line 7, please replace the paragraph beginning at page 1, line 7, with the following:~~

--Voltage sampling is traditionally used for analog-to-digital (A/D) conversion.

In a voltage sampler, a sampling switch is placed between a signal source and a capacitor. Between two sampling moments, the capacitor voltage tracks the signal voltage accurately. At the sampling moment, the switch is turned off to hold the capacitor voltage. The two processes become increasingly difficult when the signal frequency increases. For a given accuracy, thermal noise and switching noise set a minimum allowable capacitance while the tracking speed set a maximum allowable capacitance or switch resistance. It becomes impossible when the maximum is smaller than the minimum. Moreover, the clock jitter and finite turning-off speed